

REMARKS

The present paper is presented in response to the **non-final** office action dated February 4, 2009. This paper is timely filed by virtue of the attached petition and fee for a two-month extension of time to respond.

A. Status of the Claims and Fees

Claims 21-27 were pending in the instant application at the time of examination; claim 27 was previously withdrawn and claims 21-26 were rejected under 35 U.S.C. § 103(a). Applicants respectfully request reconsideration.

Claims 28-31 are new and are supported by the disclosure throughout the specification. For example, claims 28-30 are supported by the disclosure at pages 18-20 and claim 31 is supported at page 21.

B. Rejection under 35 U.S.C. 103(a)

Claims 21-26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rossow et al., in view of Moormann et al. (J of Virol. 1996 Vol. 70 No 2 pp 673-770).

The Examiner maintained the rejection noting that addition of the length of the clone does not change the claim and that the applicant has not explained why the prior art would not produce a full length clone.

It is an aspect of the present invention that full length (e.g., greater than 15kb nucleotide sequence length) PRRS virus RNA clones were not produced by the methods of the prior art.

As noted in Applicants' previous submission, prior to the present invention, it was shown how to obtain an infectious clone of at or near full length (i.e., greater than 15kb nucleotide sequence length). In the present invention it is shown that the method for the production of this product is to prepare a recombinant host cell that would not normally be infected with such a PRRS virus in order that the host cell express RNA for the virus and co-culturing or passaging of the recombinant host cell with cells that are permissive to infection by PRRS virus.

The disclosure of Rossow merely teaches the PRRS virus deposited at ATCC Accession No. 2332 and the disclosure of Moorman merely teaches the use of SK-6 swine kidney cells for the production of a genomic clone of plus-strand RNA genome of the C strain. SK-6 swine cells are cells that are susceptible to infection by the specific C strain virus of classical swine fever virus used in Moorman. Thus the combined disclosure of Rossow and Moorman at best provides a teaching that the skilled person should obtain a PRRS virus and prepare a clone thereof by transfecting a cell line or cell that is susceptible to the infection. However, as explained in the background of the specification, PRRS virus is of a length greater than 15 kb and prior to the present invention it was not possible to obtain full length infectious particles of such length because for example "problems ... such as naked capsids or empty shell particles comprising several structural proteins by only part of the genome." (page 3) The presence of incomplete viral RNA fragments tend to abolish full length RNA strand synthesis and generation of infection virus comprising genome length RNA (Id.) The present invention circumvents this problem using a co-culture or passage of a host cell that is used simply to express the RNA with another cell that becomes infected with the RNA and thus produces appropriate infectious RNA particles. This is nowhere described in the art cited by the Examiner. Applicants have clarified the claims further by

adding the specific limitation for co-culture with a cell that is susceptible to the PRRS virus infection. For example, it is clearly shown in the entitled "Generation of infectious transcripts of a full-length DNA copy of the C-strain genome" that the transcripts are successively propagated in *E. coli* cells and the subsequent testing of the transcripts is in SK-6 cells, cells that are susceptible to infection by the virus.

Applicants respectfully request that the Examiner reconsiders the rejection in view of the above discussion.

C. Closing Remarks

Applicants believe the above remarks and amendments overcome the outstanding rejections and Applicants request withdrawal of the rejections and reconsideration of the claims for allowance. No fees are believed to be due, however, should fees be deemed necessary or should there be an overpayment, the Commissioner is authorized to charge any additional fees or credit any overpayment to the Deposit Account of McAndrews, Held & Malloy, Account No. 13-0017.

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Respectfully submitted,

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